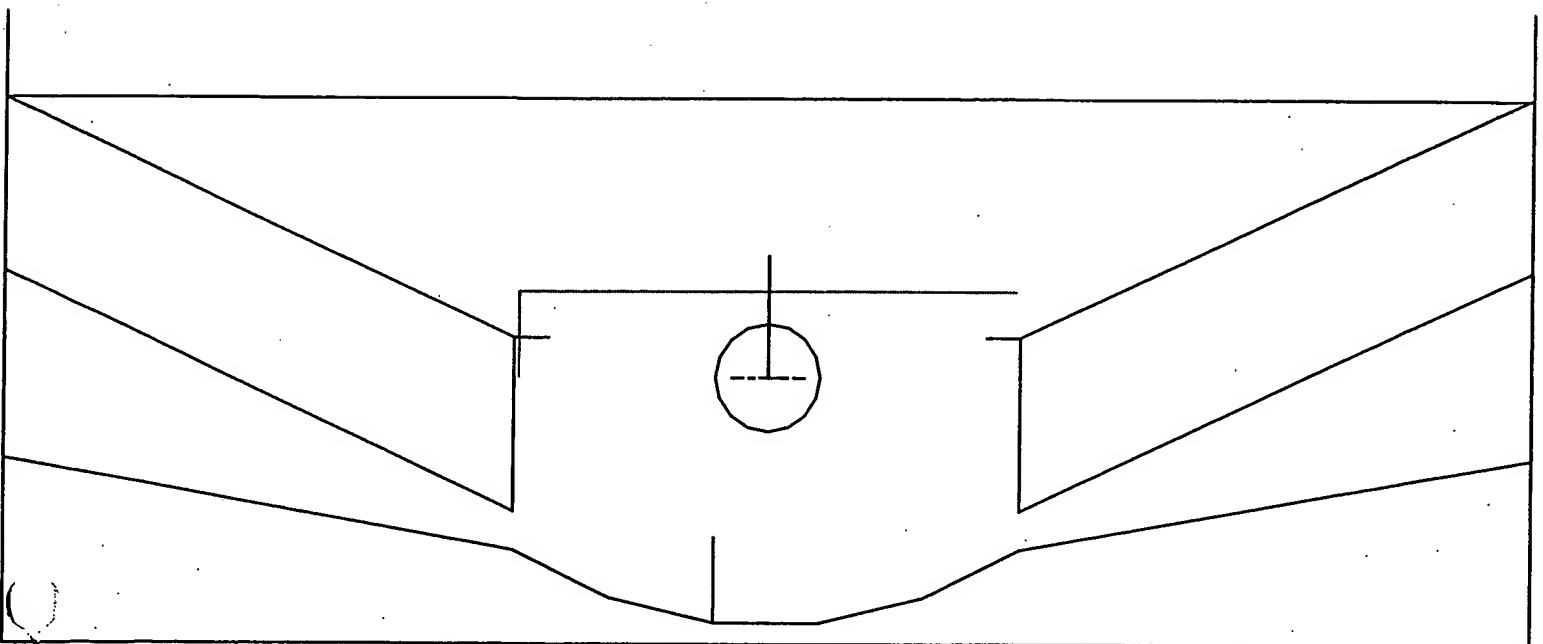


V4 Lower
Page



Tue Aug 29 15:25:00 2000

IESNA:LM-63-1995

Photopia 1.5.0.20 PHOTOMETRIC REPORT

PROJECT: V04 Lo-fan up

OPTIONS:

Spawning 1 rays for each reaction.

Writing 250 rays to a DXF file.

Random number generator seed: 8.

Tracing 30 reflections.

Stop tracing ray at 2.0% of initial magnitude.

Tracing 499982 initial lamp rays.

Photometric test distance of 20.00 feet.

LUMENS EXITING SYSTEM:

Lumens(%)	Reflection
8(0.7%)	0
87(6.5%)	1
66(4.9%)	2
85(6.4%)	3
62(4.6%)	4
62(4.6%)	5
53(4.0%)	6
48(3.6%)	7
43(3.2%)	8
38(2.8%)	9
34(2.6%)	10
30(2.3%)	11
27(2.0%)	12
25(1.9%)	13
22(1.6%)	14
19(1.5%)	15
17(1.3%)	16
16(1.2%)	17
14(1.1%)	18
12(1.0%)	19
11(0.9%)	20
10(0.8%)	21
9(0.7%)	22
8(0.7%)	23
7(0.6%)	24
6(0.5%)	25
6(0.5%)	26
5(0.4%)	27
5(0.4%)	28
4(0.3%)	29
4(0.3%)	30
860(63.7%)	Total

LUMENS ABSORBED BY SYSTEM:

Lumens(%)	Layer Name
0(0.0%)	LAMP-F14T5A
171(12.7%)	LAMP-F14T51
23(1.7%)	LAMP-F14T52
62(4.6%)	REFL-MASK
102(7.6%)	REFL-CAVITY
25(1.9%)	REFL-SHOLDER1
37(2.8%)	REFL-SHOLDER2
9(0.7%)	REFL-ENDS
431(32.0%)	Total

Lumens(%)	Material
195(14.4%)	PHOSGLAS
173(12.9%)	PERFE980
62(4.7%)	ALMIRO02
431(32.0%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit:	57.71 (4.3%)
fell below continuation minimum:	0.00 (0.0%)
could not find in/out refractor facet:	0.00 (0.0%)
reached try limit for scatter bounce:	0.00 (0.0%)
lost elsewhere(i.e. outside distrib):	0.00 (0.0%)

V04 Lo-fan up - (Photometry) - Page 2 of 4

Number of Lamps: 1 Lumens per Lamp: 1350
 Ballast Factor: 1.00 Ballast-Lamp Photometric Factor: 1.00,
 Luminaire Width: 0.7500 Length: 1.7388 Height: 0.3071
 Photometry Type: C Units: feet

Candela Distribution:

	0.00	22.50	45.00	67.50	90.00
0.00	0.000	0.000	0.000	0.000	0.000
5.00	0.000	0.000	0.000	0.000	0.000
10.00	0.000	0.000	0.000	0.000	0.000
15.00	0.000	0.040	0.000	0.000	0.000
20.00	0.000	0.000	0.100	0.000	0.000
25.00	0.000	0.000	0.000	0.000	0.000
30.00	0.000	0.050	0.060	0.030	0.070
35.00	0.070	0.040	0.260	0.260	0.090
40.00	0.000	0.200	0.390	0.290	0.120
45.00	0.090	0.150	0.490	0.550	0.370
50.00	0.020	0.350	0.790	0.960	0.320
55.00	0.020	0.440	1.44	0.950	0.160
60.00	0.180	0.870	1.74	1.42	0.760
65.00	0.040	1.06	2.34	1.80	0.740
70.00	0.190	1.68	3.52	2.37	0.880
75.00	0.170	2.69	3.97	2.76	0.980
80.00	0.980	4.79	5.41	3.36	1.06
85.00	1.45	6.24	6.42	4.03	1.21
90.00	2.62	23.3	42.9	56.0	56.4
95.00	10.9	66.2	129	157	166
100.00	21.2	86.8	181	236	250
105.00	24.8	90.5	191	251	297
110.00	36.9	78.6	220	271	273
115.00	44.5	76.8	184	315	343
120.00	52.3	71.8	149	260	327
125.00	59.2	73.0	135	186	219
130.00	65.2	84.8	106	184	197
135.00	74.8	84.9	98.1	136	173
140.00	75.2	89.0	114	97.4	104
145.00	81.7	90.3	109	127	111
150.00	85.4	93.3	101	117	130
155.00	88.2	92.8	104	107	115
160.00	90.2	96.7	103	107	104
165.00	90.8	99.8	103	104	104
170.00	99.1	98.2	97.8	104	110
175.00	105	106	98.3	100	99.8
180.00	97.9	97.9	97.9	97.9	97.9

Zonal Lumens		
Cone	Between	Lumens
0.0	0.0- 2.5	0.00
5.0	2.5- 7.5	0.00
10.0	7.5- 12.5	0.00
15.0	12.5- 17.5	0.00
20.0	17.5- 22.5	0.00
25.0	22.5- 27.5	0.00
30.0	27.5- 32.5	0.01
35.0	32.5- 37.5	0.05
40.0	37.5- 42.5	0.08
45.0	42.5- 47.5	0.14
50.0	47.5- 52.5	0.24
55.0	52.5- 57.5	0.33
60.0	57.5- 62.5	0.53
65.0	62.5- 67.5	0.69
70.0	67.5- 72.5	1.04
75.0	72.5- 77.5	1.32
80.0	77.5- 82.5	1.97
85.0	82.5- 87.5	2.46
90.0	87.5- 92.5	20.79
95.0	92.5- 97.5	60.06
100.0	97.5-102.5	86.43
105.0	102.5-107.5	91.73
110.0	107.5-112.5	93.36
115.0	112.5-117.5	95.69
120.0	117.5-122.5	79.52
125.0	122.5-127.5	59.82
130.0	127.5-132.5	53.03
135.0	132.5-137.5	42.92
140.0	137.5-142.5	34.36
145.0	142.5-147.5	33.27
150.0	147.5-152.5	28.74
155.0	152.5-157.5	23.51
160.0	157.5-162.5	18.95
165.0	162.5-167.5	14.33
170.0	167.5-172.5	9.63
175.0	172.5-177.5	4.86
180.0	177.5-180.0	0.59

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fxt
0- 30	0	0.0	0.0
0- 40	0	0.0	0.0
0- 60	1	0.1	0.1
0- 90	19	1.4	2.2
90-120	478	35.4	55.5
90-130	604	44.7	70.2
90-150	756	56.0	87.8
90-180	841	62.3	97.8
0-180	860	63.7	100.0

Total Luminaire Optical Efficiency = 63.7%

Luminaire Spacing Criterion:

0 deg	90 deg
5.44	5.44

Average Luminaire Luminance (cd/sqmeter):

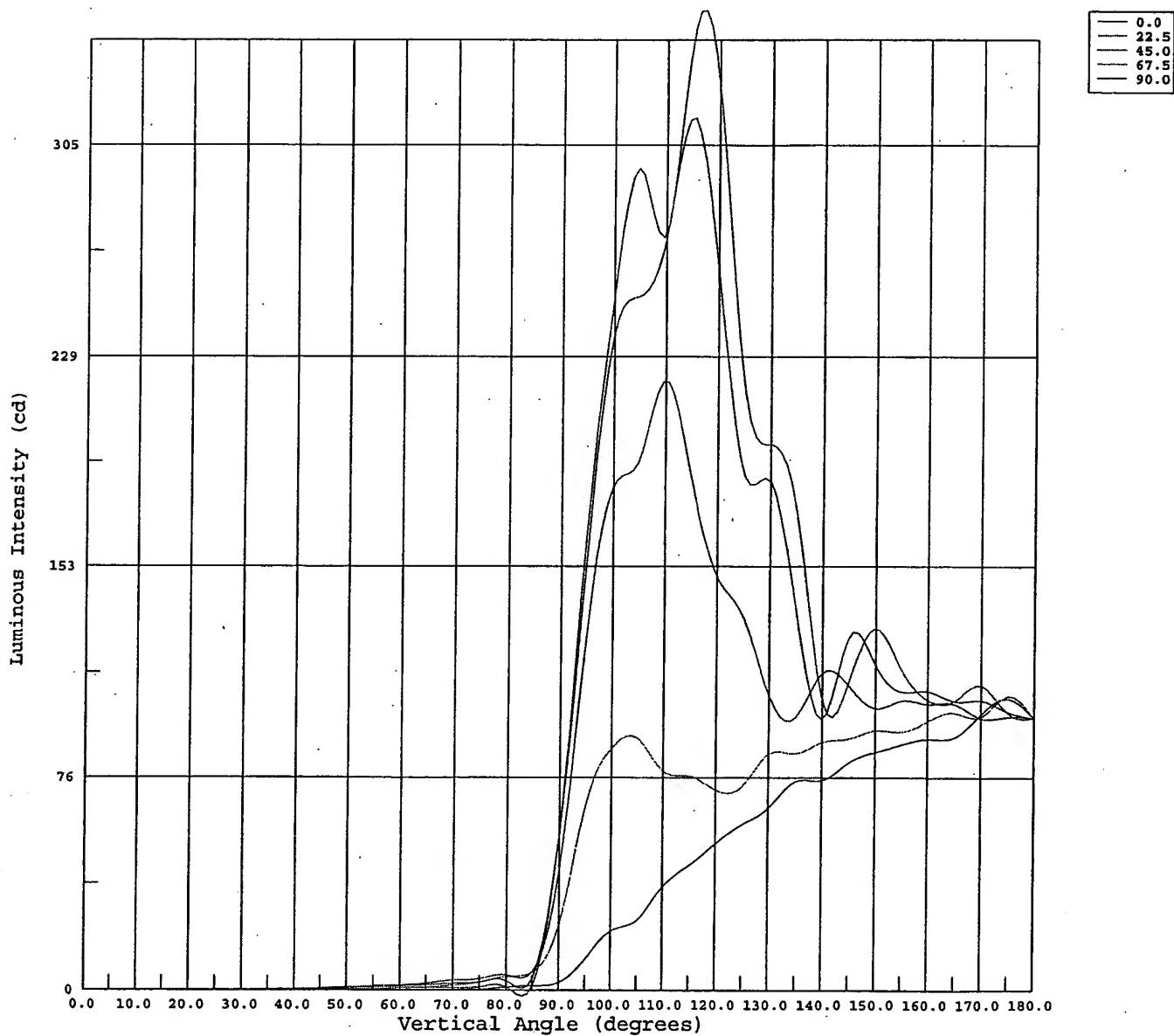
	0	45	90
0	0.00	0.00	0.00
45	0.89	4.04	3.06
50	0.21	6.79	2.76
55	0.23	13.02	1.45
60	2.28	16.72	7.34
65	0.57	24.20	7.70
70	3.09	39.72	9.99
75	3.27	49.71	12.36
80	23.27	76.75	15.17
85	45.49	105.98	20.17

Coefficients of Utilization - Zonal Cavity Method:

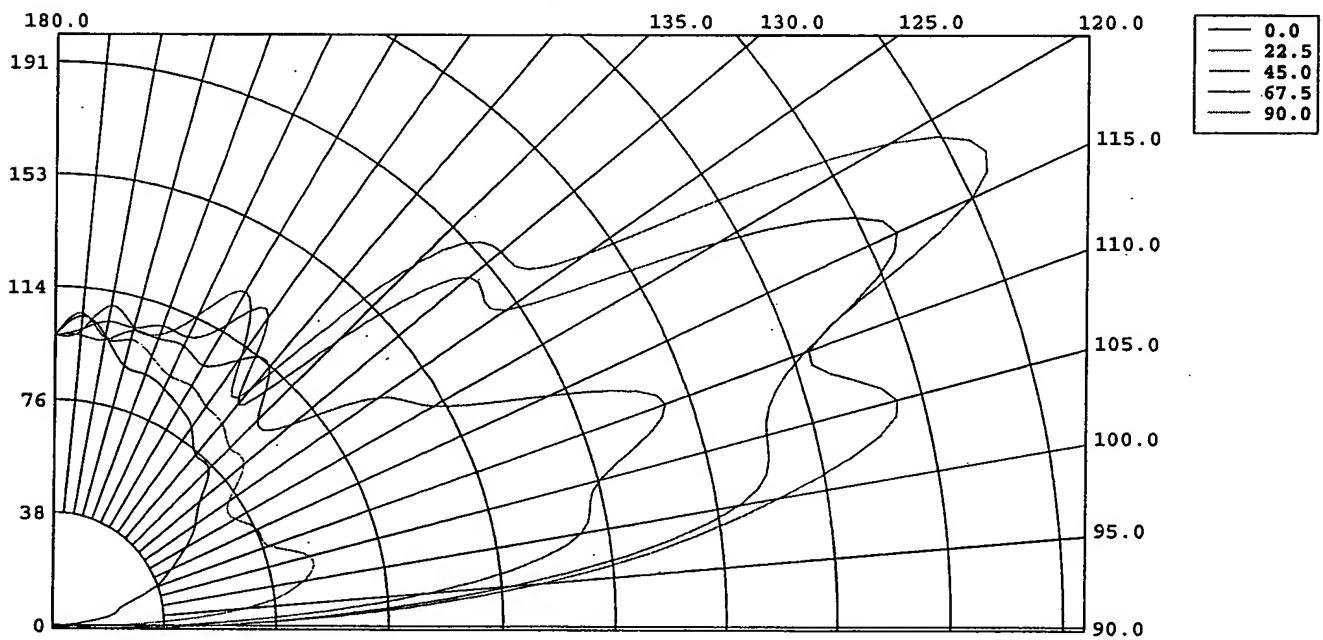
pfc = 0.20

pcc	.8	.7	.5	.3	.1	0
pw	.7 .5 .3 .1	.7 .5 .3 .1	.5 .3 .1	.5 .3 .1	.5 .3 .1	0
RCR						
0	60 60 60 60	52 52 52 52	35 35 35	20 20 20	7 7 7	0
1	55 52 50 48	47 45 43 41	30 29 28	17 17 16	6 5 5	0
2	50 45 42 39	42 39 36 33	27 25 23	15 14 13	5 4 4	0
3	45 40 35 32	38 34 30 28	23 21 19	13 12 11	4 4 3	0
4	41 35 30 27	35 30 26 23	20 18 16	12 10 9	4 3 3	0
5	38 31 26 23	32 26 22 20	18 16 14	10 9 8	3 3 2	0
6	34 27 23 19	29 23 20 17	16 14 12	9 8 7	3 2 2	0
7	32 24 20 16	27 21 17 14	14 12 10	8 7 6	2 2 2	0
8	29 22 17 14	25 19 15 12	13 10 9	7 6 5	2 2 1	0
9	27 20 15 12	23 17 13 11	12 9 8	7 5 4	2 1 1	0
10	25 18 14 11	21 15 12 9	11 8 7	6 5 4	2 1 1	0

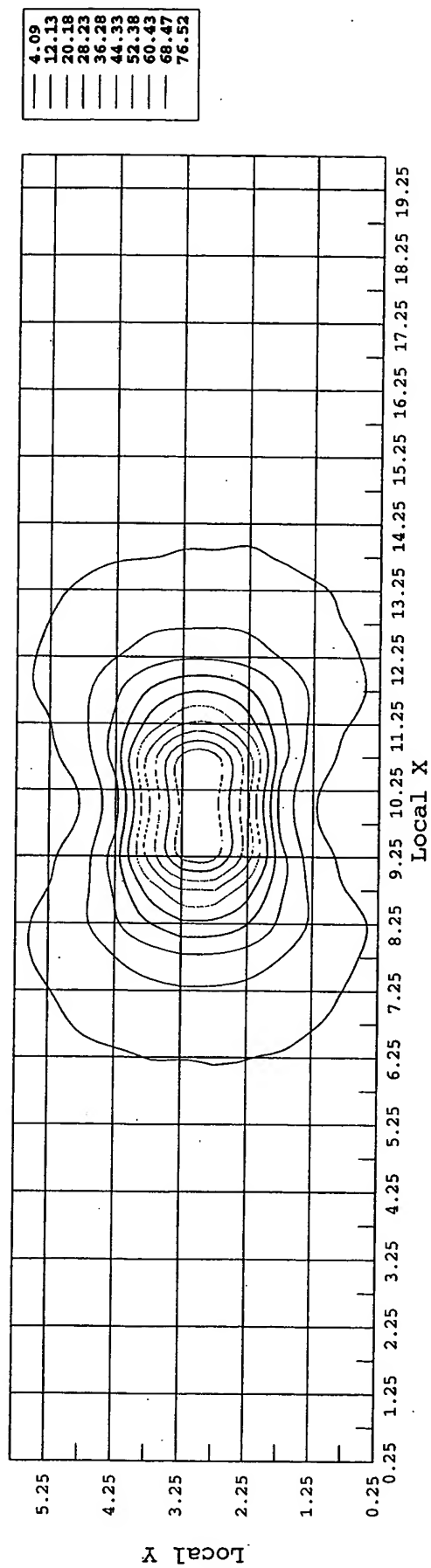
V04 Lo-fan up - (Candela Distribution XY Plot)



V04 Lo-fan up - (Candela Distribution Polar Plot)



V04 Lo-fan up - (10 x 3 down 75 Contour Plot)



Candelas on Ceiling with Indicated Luminaire Spacing

Separation in ft = 10

